

ABSTRACT

A protected template molecule and a new one-dimensional UniChemo Protection (UCP) organic synthetic method for preparing polyfunctional organic molecules is described. The synthetic method can be used with many kinds of chemical reactions and provides selective access to many functional groups in a template molecule. The method utilizes protection groups that are each composed of building block units that can be removed one by one affording a new protection group one unit shorter or exposing a functional group on the template molecule. The exposed functional group on the template molecule can react with a target group. Different target groups can be introduced into the template molecule by using protection groups containing different numbers of building block units.